

TROPICAL STORM CAITLAN (16W)

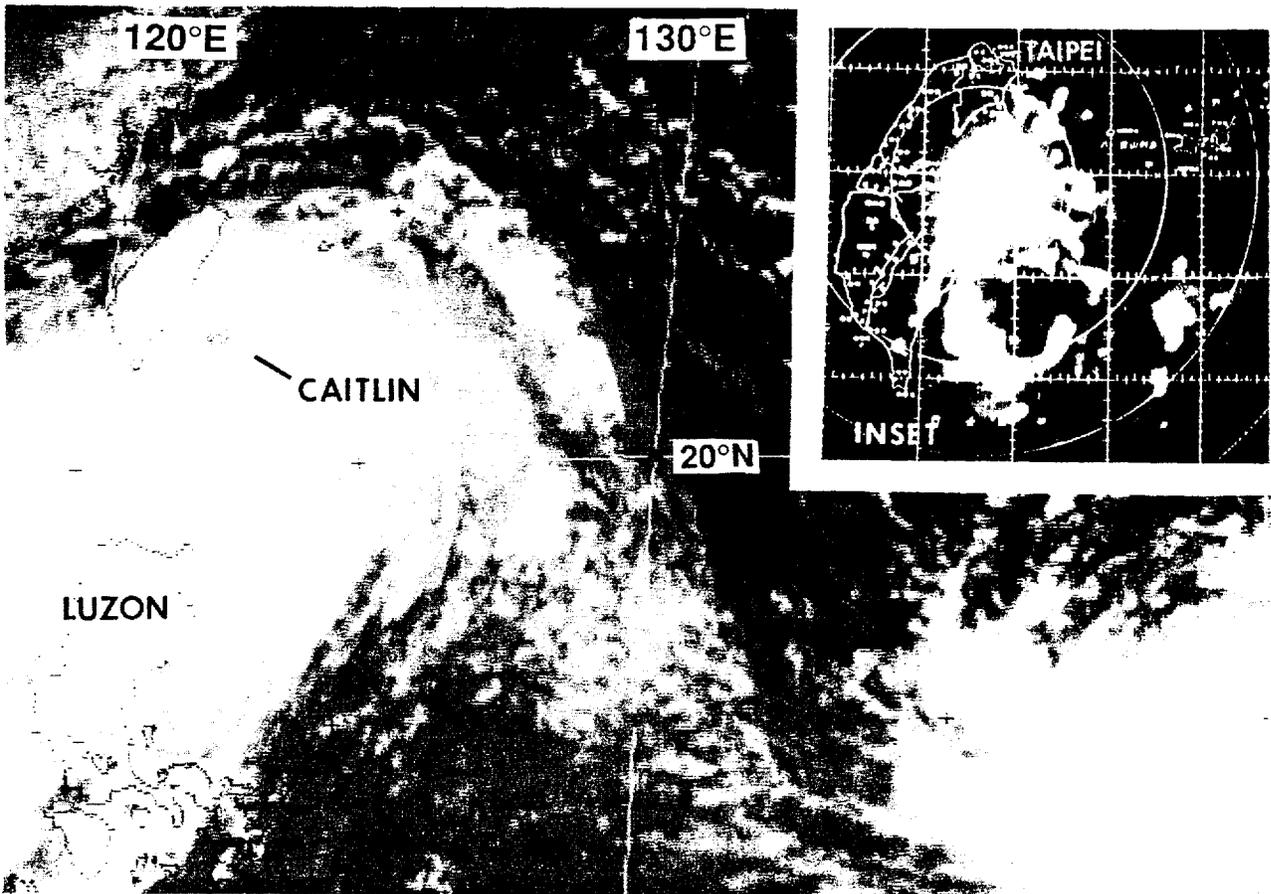


Figure 3-16-1 Tropical Storm Caitlin with a ragged banding type eye, some 60 nm (111 km) east of Taiwan (030424Z August visible GMS imagery). Inset shows Caitlin's radar reflectivity at 030700Z August. (Radar imagery courtesy of Taiwan Central Weather Bureau.)

On the morning of 29 July, a tropical disturbance developed in the monsoon trough northwest of Guam and west of Saipan. It was mentioned on the Significant Tropical Weather Advisory that afternoon (290600Z July). Development was very slow, but after four days, satellite imagery and synoptic data indicated that the disturbance was beginning to intensify, so a Tropical Cyclone Formation Alert was issued at 020000Z August. The first warning on Tropical Depression 16W was issued four hours later as the system continued to show signs of improving organization (e.g., convective curvature of the deep convection). In another six hours (at 021200Z), the system was upgraded to Tropical Storm Caitlin. It appeared to interact with a surge in the southwest monsoon, which resulted in a turn to the northwest, and an acceleration to 15 kt (28 km/hr) toward south central Taiwan. Caitlin reached its maximum intensity of 60 kt (31 m/s) at 030600Z (Figure 3-16-1a,b), three hours before going ashore in Hualien County, Taiwan, at 031015Z. Wind gusts in excess of typhoon force were experienced for a 21-hour period (030900Z to 040600Z) at Green Island, Taiwan (WMO 46760) as Caitlin passed a short distance to the north of the island. The system crossed Taiwan in six hours, and entered the Taiwan Straits at about 031500Z. Approximately ten hours later (040100Z), Caitlin went ashore on mainland China where it dissipated on 05 August. Caitlin caused heavy rains, as much as 3.3 inches (84 mm) in one hour, in China's Ningxia Hui Autonomous Region. The resulting mountain flooding killed eight people and left nine missing.